

Humboldt Del Norte County Weed Management Area 2005 Accomplishments

Humboldt-Del Norte County Weed Management Area (HDNWMA) members worked cooperatively with willing landowners and managers to reduce the extent and threat of invasive weeds within their scope of authority and to promote healthy agricultural and ecological ecosystems. The HDNWMA enhanced the effectiveness of existing weed management programs and advance good land stewardship practices, public awareness, integrated pest management, and the knowledge and skills necessary to manage invasive weeds. HDNWMA united private landowners, organizations and agencies with jurisdiction over designated lands, for the purpose of mapping, planning, monitoring and conducting research and voluntary weed management programs.

Presently, the HDNWMA members include: Department of Fish and Game, Department of Agriculture from Humboldt and Del Norte Counties, US Forest Service, California State Parks, US Fish and Wildlife Service, California Department of Transportation, Bureau of Land Management Arcata Field Office, Redwood State and National Parks.

2005 was a tremendous year for the HDNWMA in terms of invasive plant removal. Between the different participating members, approximately 1,100 acres and 100 miles of road were treated for invasive plants, 50 cubic yards of soil was sifted for Japanese knotweed rhizome pieces, 12,147 plants of *Bellardia* were removed, and biocontrols were released for purple loosestrife and yellow star thistle. On the education front, our new successful brochure '*Alternatives to Invasives*' was reprinted and redistributed for nurseries and public land kiosks.

The following is the summary of the 2005 accomplishments for the Humboldt County Weed Management Area.

Invasive Plant Removal Projects for the HWMA

- *Humboldt Lagoons State Park Exotic Plant Removal Project:*
The Exotic Plant Removal Project along Humboldt Lagoons State Park barrier beaches was completed this year. The project began in the spring of 2002 and targeted three invasive, non-native plant species: Ice plant, pampas grass, and European beachgrass. The initial treatment of Stone and Dry Lagoon beaches was completed in 2003. Initial treatment of Big Lagoon beach was completed this spring. The retreatment of all three beaches occurred this November. Monitoring of the vegetation plots at Stone and Big Lagoon occurred twice this year in April and November. This project is now at a maintenance level. Funding used to complete this project came from the CA State Park Natural Heritage Stewardship Program (\$220,000), CA State Park Category H (05/06) funds (\$15,000), and SB 1740 grant funds (\$2,000). In addition \$5,000 was secured in 2005 to remove ice plant from Agate Beach and Big Lagoon County Park in February 2006. By removing the ice plant from these areas, the entire coastal strand from Patrick's Point State Park to Stone Lagoon will be initially treated for ice plant and be at a maintenance level by April 2006. The work was performed primarily by State Park

Maintenance Aids and secondarily by California Conservation Corp (CCC) crews and CDF inmate crews.

- *Little River Pilot Habitat Restoration Project:*

This project was implemented in January 2005. It was designed as a pilot project to help guide a large-scale restoration plan for all of Little River State Beach. The pilot project was design to evaluate the most efficient and cost effective mechanical removal technique for European beachgrass and to monitor environmental changes due to restoration. Since the implementation monitoring of vegetation plots and monitoring of the sand morphology has occurred twice in 2005. Retreatment of the project area (approximately 10 acres) has occurred twice in 2005. A volunteer restoration day and picnic was held in September 2005, to retreat one of the project treatment plots. Around 22 people participated and were able to retreat an entire plot (0.69 hectares) in 2 hours. Funding for the implementation of the pilot project came from the CA State Parks Natural Heritage Stewardship Program (\$150,000) and for the some of the monitoring and retreatment State Parks Category H funds (\$8,000) were used. All work has been conducted by State Park personnel, CCC crews, CDF inmate crews, and volunteers.

- *Azalea Management:*

In 2005, both Azalea management areas were brushed to maintain the azaleas. During this routine brushing some exotic plants were removed. These species included jubata grass, scotchbroom, foxglove, English ivy, klamathweed, and cotoneaster. Approximately 100 individuals combined of the species mentioned were removed from both areas. The funding was provided by State Park Category H funds (\$7,200). All work has been conducted by State Park personnel and CDF inmate crews.

- *Earth Day Event at Patrick's Point State Park:*

In April of 2005, an Earth Day event was held at PPSP. The State Parks Foundation granted Patrick's Point State Park (PPSP) \$3,000 to be used on the event. The NCRD also partnered with PG&E for donations and volunteer support. Over 70 volunteers participated and worked at 4 locations in the park. Over five 1-ton truck loads of exotic plants (cotoneaster, scotchbroom, English ivy, and bull thistle) were removed from the meadows at PPSP and the visitor center parking lot was weeded and cleaned up. In addition the native plant garden was weeded and over 15 native plants were planted. The volunteers and staff enjoyed a BBQ and picnic donated and prepared by PG&E employees. In addition to the funding received for the event, PG&E donated an additional \$1,000 to be used in the park.

- *Caruthers's Cove Habitat Restoration Project:*

This project is using heavy equipment to remove European beachgrass from 15 acres at Gold Bluffs Beach, Prairie Creek Redwoods State Park. All work is being performed by CA State Park personnel. The funding was provided by CA State Parks Natural Heritage Stewardship Program (\$35,000).

- *Gold Bluffs Beach Exotics:*

European beachgrass (*Ammophila arenaria*), jubata grass (*Cortaderia jubata*), and dune weeds were removed around sensitive plant areas (approximately 2 acres total). The funding was provided by State Park Category H funds (\$5,000). Work has been conducted by State Park personnel and CDF inmate crews.

- *Tolowa Dunes State Park Exotic Removal Project:*

European beachgrass (*Ammophila arenaria*), jubata grass (*Cortaderia jubata*), and dune weeds were removed around sensitive plant areas (approximately 2 acres total). The funding was provided by State Park Category H funds (\$4,000). Work has been conducted by State Park personnel and CDF inmate crews.

- *Jeddah Smith Redwoods State Park Ivy Removal Project:*

English ivy was removed from many acres a few years back. In 2005, ten acres of the original removal area was retreated for ivy. The funding was provided by State Park Category H funds (\$2,000). Work has been conducted by State Park personnel and CDF inmate crews.

- *Mussel Beach Ammophila Removal:*

European beachgrass (*Ammophila arenaria*) was pulled extensively from Mussel Beach to Mussel Point, and a follow-up at Freshwater Spit. This work was done with public volunteers.

- *Hiouchi Flat Restoration area:*

This area was mowed and or cut for Himalayan blackberry (*Rubus discolor*) and Meadow knapweed (*Centaurea X pratensis*).

- *Freshwater Lagoon:*

This area had Meadow knapweed (*Centaurea X pratensis*) removed.

- *Invasive speices treated within the Redwood National Park area:*

Tansy-ragwort (*Senecio jacobaea*), Silver wattle, (*Acacia dealbata*), Meadow knapweed (*Centaurea X pratensis*), Bull thistle (*Cirsium vulgare*), Canada thistle (*Cirsium arvense*), and Italian thistle (*Carduus pycnocephalus*), wild teasel (*Dipsacus fullonum*), Greater periwinkle (*Vinca major*), Himalaya blackberry (*Rubus discolor*) Scotch broom (*Cytisus scoparius*) and French broom (*Genista monspessulana*), and Jubata (pampas) grass (*Cortaderia jubata*).

- *Ferndale Bottoms:*

The Humboldt County Department of Agriculture assisted the California Department of Food and Agriculture (CDFA) in treating the infestation of capeweed in the Ferndale Bottoms. Applications of Transline® were made to several populations of capeweed.

- *The Bear River area:*

The Agriculture Department provided to landowners in the Bear River area Transline® for the control of Tansy Ragwort. This program is a continuation of a Tansy Ragwort control Program originally started with funds provided to the Humboldt Weed Management Group area by SB 1740. In 2005, five landowners treated approximately 60 acres of Tansy Ragwort.

- *Salmon Creek Unit:*

Several occurrences of *Calystegia sylvatica* and eight occurrences of *Phalaris arundinacea* were removed.

- *Saltmarsh Island at the Lanphere Dunes Unit:*

Spartina densiflora was mowed and hand-pulled.

- *Lanphere Dunes Unit:*

Twenty acres of English ivy (*Hedera helix*) were treated by manual removal. The HBNWR and the Friends of the Dunes removed *Lupinus arboreus* from 25 acres. Thirty-six volunteers spent over 200 hours removing and piling the plants.

- *Ma-le'l Dunes Unit:*

The HBNWR began restoration efforts at the Ma-le'l Dunes Unit. *Ammophila arenaria* was removed from three acres. *Cortadaria jubata* and *Lupinus arboreus* were removed from 25 acres. *Senecio elegans* was removed from 40 acres. This project was sponsored by the Friends of the Dunes and HBNWR, with some cooperation from BLM. Also within this area known to the BLM as Ma-le'l Dunes (and now including the Manila Dunes Area of Critical Environmental Concern), the BLM, in partnership with the CCC, retreated 100 acres of *Ammophila arenaria*. Further, BLM partnered with CCC to extricate two sizeable Japanese knotweed (*Polygonum cuspidatum*) infestations, effectively sifting through 50 cubic yards of sand to remove any remaining rhizomatous material with extensive manual follow-up.

- *Samoa Dunes:*

The Lanphere Dunes Unit, HBNWR staff manually removed 12,147 plants of *Bellardia trixago* from the entrance road and cypress grove area of the BLM Samoa dunes National Recreation Area. In the Samoa Endangered Plant Protection Area, 5 acres were treated for Bermuda buttercup (*Oxalis pes-caprae*) using the Waipuna hot water and foam weed control machine. The Waipuna is an effective tool for weed control without the use of herbicides.

- *Manila:*

Coincya monensis was removed from 5 sites by staff and volunteers. This species has been treated since 1997.

- *Trouthaven area:*

Meadow knapweed removal with inmate crews from Alder camp and broom removal with CCC crews.

- *Roadside invasive plant removal from Humboldt and Del Norte county:*

Removal of broom, Yellow bush lupine, meadow knapweed, and Spanish heath from the following roadside areas of Crescent City, Clam beach, Big Lagoon, Eureka, Arcata, McKinleyville Vista point, Dry lagoon, Fortuna and Loleta.

- *Humboldt and Del Norte Counties:*

All known sites of gorse (*Ulex europaeus*) were removed.

- *Lake Earl Wildlife Area:*

Tansy ragwort (*Senecio jacobaeae*) was mechanically removed from 320 acres.

- *National Forest Service land:*

Approximately 28 acres of scotch broom and 10 acres of meadow knapweed was treated or retreated.

- *King Range National Conservation Area*

The BLM, in partnership with the California Conservation Corps, manually eradicated approximately 100 acres of pampas grass between Big Flat and Buck creek accessible through the use of rappelling equipment. The BLM, in partnership with the Mattole Restoration Council, retreated 100 acres of scotch broom in the Mattole estuary as well scattered infestations in three active grazing allotments.

- *Bureau of Land Management Scattered Tracts:*

The BLM, in partnership with the California Conservation Corps, manually eradicated scotch broom from Little Dann road which lies adjacent to Red Mountain Area of Critical Environmental Concern. Lacks creek Management area was also manually treated for several infestations of scotch broom. In following years this will require re-treatment.

- *South Spit Cooperative Management Area:*

The BLM, in partnership with the California Conservation Corps, manually eradicated 26 acres of European beachgrass, yellow bush lupine, iceplant, and annual grasses on the south end of the South Spit.

- *Headwaters Forest Reserve:*

The BLM, in partnership with the California Conservation Corps, removed 50 acres of English ivy, pampas grass, scotch broom, and cotoneaster (but will require re-treatment in the future).

Education and Outreach

- The Humboldt County WMA educational subcommittee developed a brochure for distribution at Plant Nurseries, public land kiosks, and public land offices. This poster and brochure was developed to provide the public with native plant alternatives to invasive exotic species in garden and landscaping applications. These brochures were delivered and disseminated to over 15 Humboldt and Del Norte County nurseries, and a dozen public distribution centers such as the Humboldt County public library, State Parks kiosks, BLM Arcata Field Office, USFWS Humboldt Bay Wildlife Refuge kiosks, and Caltrans rest stop kiosks.

Mapping

- *Within Redwood National Park the follow species were monitored and mapped:* Spanish heath (*Erica lusitanica*), fennel (*Foeniculum vulgare*), English holly (*Ilex aquifolium*), Giant knotweed/sachaline (*Polygonum sachalinense*), Bird cherry (*Prunus laurocerasus*), Cultivated evening primrose (*Oenothera glazioviana*), Spotted knapweed (*Centaurea maculosa* – no plants found several years after eradication efforts) and Butterfly bush (*Buddleja davidii*), Greater periwinkle (*Vinca major*), and Jubata (pampas) grass (*Cortaderia jubata*).

- *Main branch of the Eel River:*

Department of Agriculture coordinated with CDFA 2005's survey of the main branch of the Eel River and surveyed approximately 12 miles of the Eel River and determined that Purple Loosestrife had become lightly established along the main branch of the Eel River downstream from its confluence with the South Fork of the Eel River.

- *Salmon Creek Unit:*

Ninety acres at the Salmon Creek Unit, HBNWR were surveyed and mapped for 24 invasive weeds. This is the third year of a Refuge-wide mapping effort that uses volunteers to survey for weeds. The project is funded by a USFWS grant that focuses on using volunteers to control invasive plants.

Biocontrols

- *South Fork of the Eel River:*

Department of Agriculture, supported CDFA biocontrol specialist Baldo Villegas to release Galarucella beetles on the Purple Loosestrife infestation on the South Fork of the Eel River.

- *Blocksburg area:*

Yellowstar Thistle – Humboldt County Department of Agriculture personnel made releases of *Puccinia jarceae* var. *solstitialis* (a plant pathogenic rust) on Yellowstar

Thistle infestations in the Blocksburg area. Follow-up surveys to be conducted in 2006 will determine if establishment of this biocontrol agent was successfully achieved.

- *Humboldt and Del Norte Counties:*

There were 6 colonies of 300-500 beetles that were released in Humboldt county and Mendocino county for control of Tansy ragwort (*Senecio jacobaeae*).